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(54) Title: PEPTIDES AND PEPTIDE DERIVATIVES FOR THE TREATMENT OF α-SYNUCLEIN-RELATED DISEASES

(57) Abstract: The invention provides peptides which comprise a sequence of three to twelve contiguous amino acid residues (the "contiguous sequence") from amino acid residues 61 to 100 of naturally occurring α-synuclein. The contiguous sequence is linked at its N-terminal and/or C-terminal end to one or more further amino acid residue(s) which are more hydrophilic than the amino acid residue to which that end of the sequence is linked in naturally occurring α -synuclein. The invention also provides derivatives and analogues of such peptides. Peptides, derivatives or analogues of the invention are of use in prevention of α-synuclein oligomerisation and/or aggregation associated with the diseases known as the synucleinopathies. As a result peptides according to the invention are susceptible of use in the preparation of medicaments, and also in methods of treatment, for prevention and/or treatment of synucleinopathies.

INTERNATIONAL SEARCH REPORT

GB 03/03240 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07K14/47 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C07K G01N IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BIOSIS, Sequence Search, WPI Data, EMBASE C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WO 02/04482 A (OSTRETOVA GOLTS NATALIE 1-28 ; PANACEA PHARMACEUTICALS INC (US); LEBOWIT) 17 January 2002 (2002-01-17) top line page 13 Χ GIASSON BENOIT I ET AL: "A hydrophobic 1-28 stretch of 12 amino acid residues in the middle of alpha-synuclein is essential for filament assembly" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, no. 4, 26 January 2001 (2001-01-26), pages 2380-2386, XP002265314 ISSN: 0021-9258 the whole document -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. • Special categories of cited documents : "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "8" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report • 0 4: 08 0**4** 18 December 2003 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Young, C

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